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On

Role of Education in Human Capital Formation in Bihar: - An Evaluation

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Introduction:

The role of education in the holistic development of human beings has been widely acknowledged and accepted over a long period of time. Education and training enhance the person's skills, efficiency, and productivity and helps to build a capable workforce that contributes to faster economic growth. Therefore education is considered as a key for economic and social sector development in any nation and expenditure on education has observed as an investment in an economic issue that recognized more in recent years. Many economists like Schultz (1961), Swaroop (1996), Lee and Barro (1997), Gupta, and others (2004) have proved through different empirical studies that adequate and effective public spending on education accelerates economic growth and encourages human development. In the Indian constitution, education has received the utmost importance and it is considered a fundamental right for all citizens of the country. As per the constitutional provisions, both central and state governments allocate the funds to ensure equal and easy access to quality education to all children. The universal spread and improvement in the quality of education depend on adequate and effective allocations of resources through proper planned public spending by the governments. Since the independence of the country, the education sector attracts a major share of the total social sector expenditure of the government; however, this sector has been facing a continuously acute shortage of public funds. So there is huge scope to increase the public expenditure for ensuring easy access to quality education to all children of the country.

Education is an important factor which affects any country's progress. Over a period of time, in many economic theories it has been recognized that investment in human capital and research positively affects the economic growth of any country. Lucas in 1988 developed the theory of investment in human capital and so Romer in 1990 developed the theory of investment in research and technology. In Economics many economists have recognized the importance of investment in human capital which can be created by systematic expenditure on education. Education plays a vital role in the development of any country. That is why governments in developing countries seek to invest in the education sector to enhance the quality of human capital. The Indian government acknowledged the role of education in the development process at the earliest just after independence. In 1950 after the setting up of the planning commission, the government had given the responsibility to the planning commission to make plans for expenditure on elementary and secondary education with the objective of improving then abysmally low literacy rates in the country. First education reform in the

20/4/24

Radhe Shyam Yadav
21/03/24

Jineshwar Parida
21/2/24

country took place in 1968 on the recommendations of the Kothari commission. Till now three education policies have come into effect. All education policies have recommended raising the expenditure on education up to the level of 6% of GDP.

Education has universally been accepted as the most important contributory factor in the production of Human Capital. Therefore, education is being recognized increasingly as an important means or instrument for improving a country's economic and social well-being (Dhesi, 1979). It reduces poverty and social injustice and brings about equality by providing resources and opportunities to the underprivileged section of the society for upward social mobilization and social inclusion. In a contemporary time when the focus is on knowledge economy, the role of education becomes all more critical in the development of human capital. After all, a society of literate and skilled citizens has more chances of development at the economic and social level. "Knowledge is the driving force in the rapidly changing globalized economy and society (RENA, 2010).

Bihar has the lowest Human Development Index rank in India. The state has one of the lowest per capita incomes in the country. A staggering 51% of SCs and 56% of STs lived below the poverty line in the state (2011-12). It has the highest proportion of people at 51.9% of its population, who are multidimensionally poor and eleven Bihar districts have a poverty ratio above 60%. In terms of basic schooling facilities, the state has massive vacancies in teacher positions (at every level) and faculty positions at teacher education/ training institutes. There are 2.27 lakh vacant posts of teachers/head teachers in government elementary schools (2020-1). The number of schools with adverse pupil-teacher ratio (PTR) is high, at 61.7 % and 70.5% at the primary and upper primary levels, respectively. Only 8% of upper primary schools are having teachers for 3 core subjects as required by RTE norms. The infrastructure position in schools in Bihar remains grim, despite some progress over the years. As per the latest data (2021-2), the classroom deficit (as a proportion of existing classrooms) is 59.2%, and the teacher deficit (as a proportion of teachers working) is only a bit lower at 52%. The proportion of out-ofschool children in the 6-18 age group was 14% (2017-18). Dropout rates increase in higher classes, but among the marginalised groups, the phenomenon starts in the elementary cycle. The pandemic has intensified the challenge of retaining children in schools. The above gaps are reflected in the public finance data on school education in Bihar.

Public financing of school education in Bihar Overall low levels of per-child spending, massive financing gaps, and a declining priority on education in recent years characterise the landscape of school education financing in Bihar. While the per-child spending has increased

20/4/24 Radhe Shyam Yadav 21/03/24 21/3/24

over the years, Bihar continues to stagnate at the bottom, a long way below the average spending level of the major Indian States. In 2018-19, per child expenditure on school education in Bihar was less than Rs 5000, whereas it was close to Rs 24,000 in Kerala. The distance vis-à-vis states such as Kerala and Tamil Nadu at the top has only grown over the years, raising inequalities in public spending across regions. The gap in financing appears equally stark when we measure the distance between the present level of spending and what norm-based expenditure on education would necessitate. As per our estimates, the actual expenditure in Bihar is only a fourth of the total resources required for elementary education, if one were to follow the RTE compliant norms at the school level and provide the requisite systemic resources that would ensure that the system delivers. The additional requirement for elementary education alone for Bihar was a whopping 10.1% of GSDP and 40% of revenue-receipts (pre-pandemic years). Bihar, therefore, needs a big push to raise the existing level of expenditure on school education. Much of the additional funding must come as special central assistance for the state, a recommendation also made by the state-appointed Committee on Common School System in Bihar. The recent period (2015-20) has been a downward slide in priority to education in overall spending in Bihar. At present Bihar devotes around 20% to educational spending, whereas it was at a higher level a decade back. Similarly, expenditure on education as a percentage of GSDP fell from an average of 5.9% for 2005-2010 to an average of 5% for the 2015-2020 period. In 2019-20 and 2020-1, education expenditure/GSDP fell below 5%. It may be mentioned that the declining priority, in recent years, is part of an all-India trend. Along with state-level factors, these are a result of macroeconomic policies - changes in fiscal policy and intergovernmental transfer mechanisms.

3. Significance of the study:

The issues related to human capital formation have attracted the considerable attention of economists. Researchers studied various issues related to financing of education and the role of education in human capital formation. Starting from the research of Selma Mushkin and Frederich Edding in 1960s, research in human capital formation has emerged as a significant area of its own. Drawing from the theories of public finances, scholars have examined several empirical issues relating to principles and practices of public versus private financing of education, the rationale for public subsidies, the case of private finances, and unit costs of education. Serious research in the area also contributed to the development of Political Economy of Education (Martin Carnoy) and brought the role of the State in educational development and capital formation.

20/3/24 Radhe Shyam Yadav 21/03/24 21/3/24

It is evident that public expenditure on education has increased over the period as the country focused on economic development and it leads to the development in human capital. But Bihar is still facing the problem of resource mobilization and lack of resources is the main reason that public expenditure in education is below the required level. It is a challenging task to reduce poverty and unemployment which could possibly be addressed to considerable extent only through investment in human capital. During the last decade the role of public expenditure has increased. Public expenditure on scientific services and research activities are less in comparison to public expenditure in education, art and culture that is why the research sector is underdeveloped. Since education is a public good, it is the duty of the government to ensure access to education to all people, especially to the poor people who cannot afford private institutions' fees. Thus educational expenditure is necessary for development but the quality of education is more important. Therefore the government should try to reform the education sector for quality education and try to achieve the target of allocating amount of expenditure as percent of GSDP in the education sector. The allocated funds must be utilized efficiently to achieve the maximum targeted goals of education.

4. Review of Literature

There are different studies on public expenditure on education and the role of education in human capital formation, recent years that majorly focusing on trends and pattern but very few studies have focused on the outcomes. However, these all studies are important for further analysis therefore in this segment we have reviewed some earlier studies.

Governments around the world are playing a prominent role in financing education. A common motivation for taking this role is that education expenditure is a key to sustainable economic growth. Economic literature provides a foundation for this belief. Number of papers in economic growth literature have established the link between public education expenditures, human capital accumulation and long-run economic growth (Blankenau, 2007).

Gupta S, Clements B, and Tiongson E (1998) explored the trends and structure of public expenditure on education and its outcomes in the selected 118 developing and industrialist countries. The study reveals that the developing countries taking efforts to increase real per capita expenditure on the education of the society, however, the developed countries are failed to maintain the same.

Jha Raghbendra and Biswal Bagala (2001) conducted a study to examine how the increase in public expenditure on education can help to tackle down the poverty in Indian states.

20/4/24 Radhe Shyam Yadav 21/03/24 21/3/24

This study result that education plays a positive role in the reduction of poverty especially higher education has more impact than other levels of education. Kaur Balbir and

Misra Sangita (2003) reviewed the level and impact of social sector spending on health and education in 15 major states of India from 1986 to 2003. The study reveals that public expenditure on primary education is more efficient than that of secondary education. Also, the stronger and positive impact of public expenditure appeared in poor states than the rich states. Female education plays a crucial role in the enrolment of children's names at both primary and secondary school levels.

Bhattacharya Govind (2009) examined interstate disparities in public expenditure on three major social issues, education, health, and water supply of six states which are facing the same socio-economic problems. The study found that the eye-opening disparities in the context of all three major social heads in all states.

Maitra Biswajit and Mukhopadhyay C.K (2012) studied the trends in 12 countries of Asia and Pacific for the 30 years about public spending on education and its impact on the promotion of the gross domestic product (GDP). This study found that half of these 12 countries showed the existence of positive relations however this positive relation was absent in the remaining six countries. It is also observed that the gestation period of public spending on education was longer.

Bhukta Ashok and Patra Sudhakar (2019) analyzed the overall trends and nature of social sector expenditure on health and education. They also studied the correlation between public expenditure on health and education during the period of 2002 to 2018 in the country. Health and education are positively correlated with each other therefore progress in any one of them leads to the progress of another.

6. Objectives of the study:

The present study is based on the following objectives:

I. To examine the relationship between public expenditure on education and economic development.

II. To examine the factors affecting human capital formation in Bihar

III. To examine the role of education in human capital formation in the state of Bihar

20/4/24 Radhe shyam yadav 21/03/24 21/03/24

7. Hypothesis:

H01: Public expenditure on education has a significant role in the socio-economic development of Bihar.

H02: education plays significant role to the development of physical and human capital in the state of Bihar.

8. Research Methodology

Methodology is a systematic method of solving the research problems. In economics, research problems are generally solved using statistical and econometric tools. The significance of a study to a great extent depends on the methods adopted for selection of sample, collection of data and methods adopted for analysis. For the purpose of analysis, we may use various statistical and econometric techniques like correlation, regression, standard deviation, coefficient of variance etc. Appropriate hypotheses testing will be carried out t-test, z-test, χ^2-test, F-test etc.

9. Sources of Data Information:

This study is exclusively based on secondary data. The data relating to the central government and state governments expenditure on education has been taken from the various issues of Analysis of Budgeted Expenditure on Education, published by the Ministry of HRD, Government of India, Bihar Economic Survey, Plan documents, including Five Year Plans, and Annual Plans. Data for GDP, GSDP, Total Expenditure, Total Revenue Expenditure, Total Developmental Expenditure, and Total Expenditure on Social Services were drawn from National Income Statistics published by CSO. Data for international comparison were taken from various reports of international agencies including World Development Reports.

10. Plan of the study:

Chapter1: Introduction

Chapter 2: Review of Literature

Chapter 3: Research Methodology

Chapter 4: Public Expenditure on education and its role in economic development

Chapter 5: Determinants of Human Capital Formation in Bihar

Chapter 6: Role of education and human capital formation in Bihar.

20/4/24 Radhe Shyam Yadav 21/03/24 21/3/24

Chapter 7: Conclusion, Finding and suggestion.

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20/4/24

Radhe shyam yadav
21/03/24

21/3/24

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30/4/24

Radhe Shyam Yadav
21/03/24

21/3/24